

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

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*Ex parte* DARREN EDWARD PIECZYNSKI

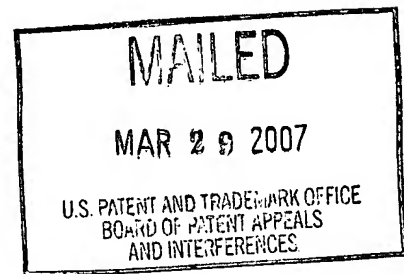
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Appeal 2007-0800  
Application 10/066,267  
Technology Center 3600

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ON BRIEF

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Before MILLS, GRIMES, and LINCK, *Administrative Patent Judges*.

GRIMES, *Administrative Patent Judge*.

**DECISION ON APPEAL**

This is an appeal under 35 U.S.C. § 134 involving claims to display devices for use with ice fishing tip-ups. The Examiner has rejected the claims as anticipated and obvious. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

**BACKGROUND**

“Since the time ice fishing tip-ups and like devices have been in use, there have been numerous ways users have made a strike apparent after daylight hours. Common indicators on tip-ups are flags, some equipped

with lights.” (Specification 1.) That is, a fish strike causes the flag to move from a horizontal to vertical position, and the change in the flag’s position in turn causes an attached light to turn on, indicating a strike has occurred. (*Id.* at 1-2.)

The Specification discloses (page 4), as a preferred embodiment, an ice fishing tip-up display compris[ing] a flashing light source located at one end of an assembly; a tilt switch . . . ; a reflective enclosure of said tilt switch/flashing light source; conductors . . . ; a power source and circuitry means to supply power to said flashing light source; and an attaching apparatus to attach to a flag arm of a fishing device.

The Specification discloses that a reflective enclosure for the light source provides a number of advantages. (*Id.* at 7.) For example, an ice fishing tip-up is vulnerable to motorized traffic on a frozen lake. (*Id.*) When a vehicle shines its lights on the reflective enclosure the vehicle’s operator will be able to see where the fishing equipment is, and avoid it. (*Id.*)

The Specification discloses that the reflective light source enclosure also allows the fisherman to verify the location of his equipment, and determine whether the flag is horizontal or vertical, by simply scanning the area with a flashlight. (*Id.*) “This is especially helpful if the unit is unarmed without the power source or if electronic failure occurs, so that the fisherman can still determine the flag position.” (*Id.* at 7-8.)

## DISCUSSION

### 1. CLAIMS

Claims 8 and 9 are pending and on appeal and read as follows:

8. An ice fishing display device for use with an ice fishing tip-up with a base assembly and a tip-up flag arm mounted to the base assembly comprising:

a reflective enclosure containing a light source and a tiltable switch such that said light source is electrically connected to said tiltable switch, and said reflective enclosure can be seen by others when shined upon with lights to verify position of said flag arm;

a power source detachably mounted to the base assembly, wherein said power source includes a detachable connection to said light source; and

an electrical connection to said light source, tiltable switch and power source wherein conductors have connection to said flag arm with removable fasteners along the length of said flag arm,

whereby, when a fish strikes, said tip-up arm is released from a lowered position and said tiltable switch electrically connects to said power source to said enclosure so that said light source illuminates to signal a user of a fish strike.

9. An ice fishing display device for use with an ice fishing tip-up with a base assembly and a tip-up flag arm mounted to the base assembly comprising:

a reflective enclosure containing a light source and tiltable switch such that said light source is electrically connected to said tiltable switch, and said reflective enclosure can be seen by others when shined upon with lights to verify position of said flag arm;

a power source; and

an electrical connection means to said light source, tiltable switch and power source within said reflective enclosure,

whereby when a fish strikes, said tip-up arm is released from a lowered position and said tiltable switch electrically connects to said power source to said enclosure so that said light source illuminates to signal a user of a fish strike.

Thus, claim 9 is directed to an ice fishing display device comprising a reflective enclosure containing an electrically connected light source and a tiltable switch. The enclosure is visible when lights are shined on it. The

device has a power source that is electrically connected to the light source and switch.

Claim 8 is similar but additionally requires the device to have a power source detachably mounted to the base assembly of an ice fishing tip-up, the power source having a detachable connection to the light source.

Claim 8 further requires the electrical connection between the light source, tiltable switch, and power source to have removable fasteners along the length of the flag arm of an ice-fishing tip-up.

Claims 8 and 9 both require the enclosure containing the light source and switch to be a “reflective enclosure.” Appellant argues that the Examiner has incorrectly interpreted the term “reflective.” (Br. 11; Reply Br. 1, 2, 4.)

It is well settled that “claims in an application are to be given their broadest reasonable interpretation consistent with the specification and that claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art.” *In re Sneed*, 710 F.2d 1544, 1548, 218 USPQ 385, 388 (Fed. Cir. 1983) (citation omitted).

The Specification does not provide a definition for the term “reflective.” However, the paragraph spanning pages 7 and 8 of the Specification describes the reflective enclosure as being visible when a flashlight is shined on it. This is consistent with the requirement in both claims 8 and 9 that the reflective enclosure “can be seen by others when shined upon with lights to verify position of said flag arm.”

The Specification also states that when a vehicle’s lights shine on the enclosure, it “will illuminate.” (Specification 7.) However, in our view, interpreting “reflective” to mean that an object must emit light, rather than

merely throw back the light that hits it, is contrary to the meaning that one of ordinary skill would give the term.

Appellant's argument supports this conclusion. Appellant urges that one of ordinary skill in the art would understand the term "reflect" to mean "to prevent passage of and cause to change direction, as a mirror reflects light; to bend or fold back; to throw back light or sound." (Br. 11; Reply Br. 4 (citing [www.m-w.com/dictionary/reflection](http://www.m-w.com/dictionary/reflection)).) Thus, giving the term its broadest reasonable interpretation, one of ordinary skill would understand that the term "reflective" does not require an object to emit light.

We therefore interpret the term "reflective enclosure" to encompass enclosures that obstruct the passage of at least some light, causing it to change direction, as well as enclosures that throw back at least some of the light that falls on them.

## 2. OBVIOUSNESS

Claim 8 stands rejected under 35 U.S.C. § 103 as obvious in view of Muenchow<sup>1</sup> and Eppley.<sup>2</sup> (Answer 3.)

The Examiner cites Muenchow as describing an ice fishing tip-up with a reflective enclosure containing an electrically connected light source, tiltable switch and power source. (Final Rejection 2 (October 19, 2005).) The Examiner states that "[t]he reflective enclosure inherently can be seen by others when shined upon with lights to verify the location of the flag arm." (*Id.*)

The Examiner cites Eppley as disclosing a tip-up with a reflective enclosure containing a light source and a connected tiltable switch. (*Id.*)

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<sup>1</sup> Muenchow, U.S. Patent 5,979,101, issued November 9, 1999.

<sup>2</sup> Eppley et al., U.S. Patent 5,067,269, issued November 26, 1991.

The Examiner notes that Eppley teaches the power source as being detachably mounted to the base assembly, “having wire 18 mounted to flag staff 14 as shown in Fig. 3 with removable fasteners (not labeled but see Fig. 2).” (*Id.*)

While Muenchow does not describe the power source as being detachably mounted to the base assembly with a detachable connection to the light source, as recited in claim 8, the Examiner urges that “it would have been obvious to provide Muenchow with a remote power source as shown by Eppley et al for the purpose of changing the power source without having to disassemble the reflective enclosure.” (*Id.*)

“[O]bviousness requires a suggestion of all limitations in a claim.” *CFMT, Inc. v. Yieldup Int’l Corp.*, 349 F.3d 1333, 1342, 68 USPQ2d 1940, 1947 (Fed. Cir. 2003) (citing *In re Royka*, 490 F.2d 981, 985, 180 USPQ 580, 583 (CCPA 1974)). Appellant argues that Muenchow and Eppley fail to teach a reflective enclosure containing a light source and tiltable switch, as required in claim 8. (*See* Br. 11-12; Reply Br. 4.) Specifically, Appellant urges that the Examiner is incorrect in asserting that the enclosures of Muenchow and Eppley are inherently reflective because they are visible. (Br. 11.)

Appellant argues that the rejection “confuses ‘visibility’ with ‘reflectivity.’” (Br. 11; Reply Br. 4.) Appellant further urges that “persons skilled in the art know that: *reflective* items may be *visible* to some extent even when a light is not directly shined on them; and that a mirror has a front surface which is reflective and a rear surface which is non-reflective but may still be visible.” (Br. 12.)

Thus, Appellant argues, those skilled in the art do not consider the term “reflective” to be synonymous with the term “visible.” (Br. 12; Reply Br. 1-2.) For example, Appellant cites *Rosco, Inc. v. Mirror Lite Co.*, 304 F.3d 1373, 64 USPQ2d 1676 (Fed. Cir. 2002), as a case in which the U.S. Court of Appeals for the Federal Circuit considered patent claims containing the terms “reflective” and “non-reflective” in reference to surfaces of a mirror lens. (Br. 12; Reply Br. 2.)

We do not find Appellant’s argument persuasive. We can agree, for the sake of argument, that some reflective items, presumably those that also emit light, may be visible even when a light is not directly shined on them. We also agree with Appellant (Reply Br. 2) that objects such as stars may be visible because they emit light.

However, the definition provided by Appellant for the term “reflect” (Br. 11; Reply Br. 4 (citing [www.m-w.com/dictionary/reflection](http://www.m-w.com/dictionary/reflection))) does not *require* a reflective item to be visible even when a light is not directly shined on it. Rather, Appellant’s proffered definition supports the premise that one skilled in the art would reasonably interpret the term “reflective” to encompass items that obstruct the passage of light, causing it to change direction, as well as items that throw back at least some of the light that shines on them.

The enclosure containing Muenchow’s light source, switch, and power source is “made as a continuous cylindrical tube of flexible waterproof material” which has “[a] tubular lens [that] is built into and protrudes from the sleeve closed end.” (Muenchow, col. 3, ll. 50-55.) Since it is not entirely transparent, Muenchow’s enclosure obstructs, changes the direction of, and throws back a sufficient amount of light to allow it to be

seen. (*See, e.g.,* Muenchow, Figure 1 (element 25), and Figure 2.) Thus, the enclosure containing Muenchow's light source, switch, and power source is "reflective," as one skilled in the art would understand that term. We therefore agree with the Examiner that Muenchow discloses a reflective enclosure, as required in claim 8.

Appellant further argues (Br. 12) that

those skilled in the art know that a reflective item when shined upon by an external light *will turn* back the light impinging on the reflective item *in the direction of the external light*. This is quite different than a tree becoming *visible* during daylight hours, as the viewer does not have to be located in the direction between the tree and the sun for the tree to be *visible*.

Indeed, claim 8 (as well as claim 9) specifically state[s] that "said reflective enclosure can be seen by others *when shined upon with lights to verify position of said flag arm.*"

We do not find Appellant's argument persuasive. We agree with Appellant to the extent he argues that, when lights are shined on them, objects having relatively high reflectivity can be more easily seen at greater distances than objects having relatively low reflectivity.

However, the claims do not limit the enclosures to any particular degree of reflectivity. Thus, the claims encompass enclosures having any degree of reflectivity. As discussed *supra*, because the enclosure containing Muenchow's light source and switch necessarily obstructs, changes the direction of, and throws back at least some of the light that impacts it, that enclosure is "reflective," as one skilled in the art would understand that term.

Because the claims encompass any degree of reflectivity, we agree with the Examiner that Muenchow discloses a reflective enclosure that can be seen by others when shined upon with lights, as required in claim 8.



Appellant further argues that one of ordinary skill would not have been motivated by Eppley to modify Muenchow's device by providing it with a remote power source, because Muenchow teaches the importance of maintaining the power supply within a waterproof sleeve. (Br. 13-14; Reply Br. 3.) Appellant argues that "it would be contrary to the teaching and purpose of Muenchow to modify its enclosed local power source in exchange for the remote power source as shown in Eppley et al. This flies in the face of the Muenchow teaching." (Br. 14.)

It is true that a prima facie case of obviousness based on multiple references may be established "only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references." *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). "The fact that the motivating benefit comes at the expense of another benefit, however, should not nullify its use as a basis to modify the disclosure of one reference with the teachings of another. Instead, the benefits, both lost and gained, should be weighed against one another." *Medichem S.A. v. Rolabo S.L.*, 437 F.3d 1157, 1165, 77 USPQ2d 1865, 1870 (Fed. Cir. 2006) (quoting *Winner Int'l Royalty Corp. v. Wang*, 202 F.3d 1340, 1349 n.8, 53 USPQ2d 1580, 1587 n.8 (Fed. Cir. 2000)).

The ultimate determination of obviousness is based on a preponderance of the evidence. *In re Kahn*, 441 F.3d 977, 989, 78 USPQ2d 1329, 1338 (Fed. Cir. 2006). We agree with the Examiner that, when the advantages of Eppley's remote power source are weighed against Muenchow's enclosed power source, one of ordinary skill would have been

motivated to combine Muenchow's device with Eppley's remote power source.

Both power sources are attached to the tip-ups by similar attachment means. (See Eppley, Figures 2-4, item 28; Muenchow Figure 1, and col. 3, ll. 60-65 ("The . . . light system 25 is secured to the arm 19 of the tipup flag alert 17 by a pair of circular bands 73, which may be flexible rubber rings.")) Eppley's power source can be replaced by simply removing the source and attaching a new one. However, because Muenchow's power source is contained within an enclosure (Muenchow, Figure 3), the additional steps of disassembling and reassembling the enclosure are required in order to reattach the power source to the tip-up. We therefore agree with the Examiner (Answer 4) that Eppley's remote power source is more convenient than Muenchow's.

Eppley's remote power source also provides the advantage of easy deactivation, allowing the user to conserve the power source when it is not needed. (Eppley, col. 3, ll. 44-47 ("To preserve the power source during other than low light hours or hours of darkness, the light device is deactivated by simply removing battery clip 24 from battery 25."))

Because Eppley's remote power source has distinct advantages compared to Muenchow's, we agree with the Examiner that the references can be properly combined.

Appellant further argues that "in this very crowded area of technology, improvements, which the non-artisan may view as minor, are still significant and patentable." (Br. 13) We are not persuaded by this argument.

“The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art.” *In re Young*, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991). As discussed *supra*, we agree with the Examiner that one of ordinary skill, apprised by Eppley of the advantages of a remote power source for tip-up display devices, would have been motivated to provide Muenchow’s device with a remote power source. We therefore also agree with the Examiner that one of ordinary skill would have considered claim 8 obvious over Muenchow and Eppley. The obviousness rejection of claim 8 is affirmed.

### 3. ANTICIPATION

Claim 9 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Muenchow. (Answer 3.)

The Examiner cites Muenchow as disclosing, for use with an ice fishing tip-up, a device having an enclosure containing an electrically connected power source 31, tiltable switch 29, and LED light 33. (Final Rejection 3 (October 19, 2005).) The Examiner states that “Muenchow shows an inherently reflective enclosure partially due to the lens 39 for the LED light 33.” (*Id.*)

Appellant argues that, “[u]nder the doctrine of inherency, if an element is not expressly disclosed in a prior art reference, the reference will still be deemed to anticipate a subsequent claim *if* the missing element ‘is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.’” (Br. 14 (quoting *Cont’l Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991) (emphasis by Appellant).) Appellant urges that there is no

evidence in the record necessarily demonstrating that Muenchow's enclosure is reflective. (*Id.* at 15.)

The Examiner responds that "the missing material is necessarily present since the enclosure of Muenchow is a reflective enclosure since it would partially prevent[] the passage of light and cause [it] to change direction." (Answer 4.)

We agree with the Examiner that the enclosure containing Muenchow's light source, switch, and power source is inherently reflective. As discussed *supra*, one of ordinary skill would interpret the term "reflective" to encompass objects that obstruct the passage of at least some light, causing it to change direction, as well as objects that throw back at least some of the light that impacts them. Muenchow's enclosure is "made as a continuous cylindrical tube of flexible waterproof material" which has "[a] tubular lens [that] is built into and protrudes from the sleeve closed end." (Muenchow, col. 3, ll. 50-55.)

Thus, since it is not entirely transparent, Muenchow's enclosure obstructs, changes the direction of, and throws back a sufficient amount of light to allow it to be seen. (*See, e.g.*, Muenchow, Figure 1 (item 25), and Figure 2.) The enclosure containing Muenchow's light source, switch, and power source is therefore necessarily "reflective," as one skilled in the art would understand that term. We therefore agree with the Examiner that Muenchow inherently describes a reflective enclosure.

Because we agree with the Examiner that Muenchow describes a device having all of the elements required in claim 9, we affirm the anticipation rejection.

SUMMARY

We affirm the obviousness rejection of claim 8 and anticipation rejection of claim 9.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

  
Demetra J. Mills

Administrative Patent Judge



Eric Grimes

Administrative Patent Judge



Nancy J. Linck

Administrative Patent Judge

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APPEALS AND

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Appeal No. 2007-0800  
Application No. 10/066,267

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